



Macdonald College

THE HARVEST

n. 5 february 1982

Mac going downhill?

Well, its another year, the year of dogs, for those interested in chinese astrology. Holidays are already far away, and the train kept on going. Back to our campus with our resolutions still good, and hopes for tomorrow. But what about today? Everything is not going well; I would even say some things are going downhill at Mac. But who cares? OK, I made a list; we'll see what's wrong if we want to....

First of all, a little true story. Last Friday, 10:30 pm, after the excellent "Lady sings the Blues" presented by the Mac movie festival (attendance for two showings 48 people; 160 were needed to break even), we decided to go to have a beer in OUR OWN bar, the Ceilidh. For sure it's not funny to line up outside in minus twenty-five. It is even less funny when you see fifteen or twenty people going out and nobody being let in. But since we, Mac students, have paid, and are still paying, for that f.... bar, it is not funny at all. And it was full of JAC. My question is: when are we going to sell it to John Abbott and get our \$\$ back? (There were five of us Mac students waiting outside, but the JAC doorman, kind of violent asshole, I believe he has some exotic internal disease, didn't want to let anyone in...)

Episode two

So is not being able to get a drink the only alement of this campus? I'm not so sure, because of another little (true) story. Have you heard about the ski night at the arboretum? This was supposed to be a huge success, fifty people signed up. (It's not so often that an activity interests 5% of all students). But before the budget was accepted by the so-called finance committee, at 7:45 am the day the Night took place, Bernard, all alone, had to fight the jungle of arguments these 'Finance' people had to oppose the project. The winner

was; "you're making a party for your friends." He was asking for \$100 to get a bus to go to the arboretum, rent the chalet over there, and buy some hot chocolate and

cookies... Meanwhile the money allocated to the Winter Carnival committee exceeds their demands. We all know that the Carnival is mostly a publicity operation for the university. Don't forget that 200 or 300 woodsmen from everywhere are here that weekend. We have a reputation to keep up. But no money for student activities? Is it the whole setup of our Student Society, or the people in there that have to be removed? Thanks Bernard, you broke the wall; we'll do it again.

Episode three.

I'd also like to say a word on the Café Macadam. Here is part of an article from the Harvest of one year ago. (Feb. 1981): "...le café se veut d'abord et avant tout une organisation communautaire servant toute sorte d'activités étudiantes: que ce soit un séminaire, une réunion, un party, ou tout ce que vous voulez. Ce local a été aménagé par et pour les étudiants, et doit donc être utilisé par eux. Le café n'est donc pas un restaurant, et ne veut pas le devenir... C'est à ce niveau qu'intervient l'organisation communautaire. De par la constitution du café les membres actifs (ceux qui y travaillent) représentent le pouvoir de décision et d'action du café... Il est risqué de devenir le "cheap labour" de certains autres organismes (Snack Bar pour exemple)" Yolaine Bélanger, founder's committee. (Lâche pas Yo, on a bientôt fini.)

The café has changed, and is now controlled by different sources. Now you have to pay 25 dollars if you organize a meeting for any students' association. And the food, from natural-healthy products is

moving slowly but surely to what the cafeteria has in stock. Question: why did we build another cafeteria under the control of the same "boss"?

But all this in fact leads us to the same theme. WE, US, STUDENTS. One more time. And if we don't react, nobody's going to move for us. Our Society is degenerating into a bureaucratic mess where all spontaneous ideas must go in the garbage. You have to make reservations X weeks in advance (X is two these days), and go through a hermetic flowchart of officials... The former student's council slept all year round. This year was the one supposed to bring "changes in the constitution and revolution in the Student Society". It's February now, and we still haven't heard anything. Vicious circle; the Cold War between us and them continues. The Council fights to get more people involved, and the

students are discouraged in advance, in the face of increasing difficulty of getting what they want. I see only one solution. But, like the others who are involved in one way or another, I am sick of the silent majority. We won't do the job for a thousand persons. We, yes, like all of you, have to study; but if we found some time in our schedules for extra activities, you can do it too- it is your turn now. Mac spirit? Old dream, excuse us. We've done a little. And if everyone does as much, it will be a big little. Who reads the Harvest anyway???

P.S. We are four or five people working for the Harvest, depending on the weather, and no one will be here next year to explain the B-A-BA of its functioning. If you don't want it to disappear we will be very happy to work with you this semester...

Christine Deschamps.

Horticultural Therapy

In prisons, old people's homes, schools, community centres for delinquents and institutions for the handicapped, therapists are using horticulture to bring physical and mental health to a great variety of people. The beauty of it is that it works; the combined benefits of physical exercise, the exposure to fresh air and light, and the contact with the earth and growing plants makes it an extremely effective form of therapy.

Furthermore, the economics of it are irrefutable; not only is it a relatively inexpensive method of rehabilitation, it can also produce a substantial amount of food. Several institutions have become self-sufficient in vegetables through their horticultural therapy programs.

Horticultural therapy is a fast growing professional field. In the US last year there were 500 job openings in HT, and only twenty-five graduates from

HT programs- in these days of high unemployment that's not a bad ratio. There is an american national association that puts out a newsletter, holds conventions, publishes books, and runs a rigorous, multi-level certification program. There are several universities that offer masters and/or bachelors degrees, or have HT options within their horticulture departments. For agriculture students interested in alternatives to civil service or agribusiness careers, HT provides one solution.

As for Canada, information about the state of HT is not yet forthcoming. There was however, a symposium on horticultural therapy held in Edmonton last fall and we have written the organizer for names and addresses. Check further issues of the Harvest for more information, or the Therapeutic Gardening file in the Ecological Agriculture Project office in Barton 1-022.

Bunkpurugu, I presume: cuso in Ghana

Jerry Maughn and Nicki Bunning are tired. The two former CUSO volunteers have just been through a long day of meeting people and explaining what they have done during the past two years.

They've only recently returned from a two year stint in northern Ghana, where Nicola worked in health and nutrition, and Jerry in agriculture. They came to Macdonald to convey their impressions of their difficult, yet unquestionably rewarding stay in the sparse savannah of the northern province, speaking to classes during the day, and conducting a long and stimulating discussion with a receptive audience of students that evening at a CUSO information meeting.

As they explained to us, the project they were both working on, the Bunkpurugu Community Development Project, was an attempt to set up an agricultural research-extension service station, as well as a program of community health and nutrition.

In this semi-arid region water is scarce, and agriculture is always a demanding, risky undertaking. In 1979, Jerry was asked by CUSO to accept the challenge of building an agriculture station at Bunkpurugu. It was felt this would go hand in hand with an adult literacy campaign already established in the community.

Jerry found a site for the station. Funds, and community labour were lined up, and the building commenced. As work progressed, snags were encountered; community labour became unreliable, and more funds were needed for necessary equipment and supplies. Bureaucracy, and endless red tape in getting a truck through customs had Jerry stacking paper rather than bricks for three weeks in the capital, Accra.

Meanwhile, Nicola, despite her advanced pregnancy, continued to keep work on the buildings going, as well as administering the health and nutrition program.

The project included running an agricultural input store, and a great deal of 'savannah-roots' extension work. Nicola and Jerry had to show imagination, dedication, patience, and throw in a lot of horse sense to make the project successful. They had to gain the trust of the villagers and farmers, understand their customs, and

most importantly, adapt to an ever-changing situation.

These small projects are small, but very definite steps in the direction of community development in Bunkpurugu. The development project had to

understand the needs of the local community, and avoid imposing unacceptable 'foreign ideas' on them.

The experience has coloured Nicki and Jerry's perspectives. They recognize more than ever

that, while they may have provided a much-needed and appreciated service to the Bunkpurugu, they received in return the satisfaction of those two years of learning about themselves and other people.

Growing in Greenhouse and Garden

On January 26, members of the College, and the West Island community were treated to an illustrated talk by Linda Gilkeson, former greenhouse research director at the PEI Ark Project. She showed how, with a bit of planning, (and due attention to soil fertility etc), you can spend less time in the garden, yet improve yields and have a fresh supply of greens all year round.

Planting in three-foot wide beds, for instance, reduces both soil compaction, and the amount of space taken up by paths.

Pest control efforts can be cut down by attracting beneficial insects to the garden, with flowers among the vegetables (looks great.); weeds can be avoided by mulching pathways, eg. with old newspapers, and by maintaining a continuous ground cover of growing vegetables. You can seed fairly thickly if the thinnings will be eaten, or interplant slow-growing with fast-growing species, harvesting one to make room for the other. Use productive varieties (eg. cut-and-come-again broccoli), but don't overdo it- a couple of feet square of lettuce, for instance, may be all you need. Sprawling plants like cucumber can be trellised, and shade-lovers grown behind them.

Such measures can reduce your space requirements by three-quarters, are cost-effective, and save you time in soil preparation.

In addition, you may want to extend your growing season. A moveable 'tunnel' of wood and plastic can keep plants alive in the garden until December, and pre-warm the soil for an early start in the spring.

An insulated cold frame can be built for as little as \$8 from scrap materials, and can supply greens for harvest even in mid-winter, provided the plants are already large and vigorous by fall. Seeds planted in between these larger plants can be harvested, and-or transplanted outside under tunnels, by late March or April.

In greenhouses too, trellising, interplanting, and continual cropping from each plant can save space, time and money. A

200 square foot greenhouse at the PEI Ark Project required only two hours of work per week to maintain, and produced tremendous amounts of food.

There are tricks, like training a tomato plant to two tops, which can increase its yield up to double. Clipping off lower leaves can prevent infestation by aphids, botritis, etc., and allows room for a second crop, such as lettuce. Flats of seedlings should be

kept ready to transplant into empty spaces as they appear. And a newly-designed, multi-tiered bench looks promising for growers who cannot afford a large greenhouse.

More detailed information on intensive gardening, cold frame and greenhouse design and management (including biological pest control) is on file at the Ecological Agriculture Project resource centre in B1-022.

World Food at Mac

The new course called WORLD FOOD: A POLITICAL AND SOCIAL ISSUE is a unique phenomenon at Macdonald College. It is rare in this science oriented, relatively apolitical college that students have the opportunity to study the political and social aspects of food and agriculture. It is also a unique opportunity for the students to participate in debate and discussion rather than passively absorbing a lecture. The students were also called upon to contribute to planning the course content and structure.

The course grew out of a discussion group on the Politics of Food/Hunger organized by the Ecological Agriculture Project last winter. The group concluded that the students would benefit from some faculty input and academic credit. So, Dr. Donefer and Dr. Chavez, well known for their interest in international development were asked to help organize the course. Their enthusiasm was immediate. Although Dr. Donefer was not available for teaching this term he was very interested in participating next fall. Dr. Chavez, despite a heavy course load, agreed to help out this winter.

The course consists of a series of student debates, films, and speakers on twelve main issues pertaining to world hunger and cultural development:

Population Too Many?

Land Tenure: The Production and Social Effect

Green Revolution: A Success?

Food Production: Animal vs. Plant

Foreign Aid

Multinationals

Renewable and Non-Renewable Resources as Limiting Factors

Role of the International Aid Agencies

Role of Political Structure: Capitalist vs. Socialist

Food Production in Quebec

Food as a Weapon

Agriculture and Food Production: First Priority as a Component of Development

Although the emphasis is on Third World agriculture, the issues are just as relevant to the developed countries. Concentration of land ownership, for example, is by no means confined to the LDC's but is a serious problem in North America.

Admittedly, the course has some rough edges, and getting science to discuss politics has not been easy. However, the course has much more successful than the organizers expected, and attendance remains high. One of the advantages of the course is that even those students (or staff) who are not taking the course for credit may participate in the discussions.

If you'd like more information about the course you can contact Sue at the Ecological Agriculture Project, (Barton 1-022) and watch the Mouthpiece for announcements of films and special lectures. For those interested in taking the course, we are planning to offer it next semester.

SVP asks Acid Rain to Stop

SVP (Société pour vaincre la pollution) is very concerned about acid rain. They also know a fair amount about it, but their presentation, sponsored by the Wildlife Society two weeks ago, lacked both interest for scientists, and real solutions for economists.

Acid rain is caused by the dumping of sulphur and nitrogen oxides into the air. These form dilute acids with moisture in the atmosphere, and eventually fall as acid precipitation. In southern Québec the average pH of rain is about 4.5, and is pH 5.5 to 6.0 in the northern regions. 'Natural' rain is above pH 5.6, as this is the maximum acidity possible from the dissolving of CO₂ in water to form carbonic acid. The major sources of sulphur oxides in Canada are non-ferrous metal smelters, notably INCO in Sudbury, and Noranda Mines in Québec. In the US the major sources are power houses burning fossil fuels. Automobiles are the major source of NO_x emissions.

SVP presented this material, and other generally-known facts about acid rain. However, in the question period much interest was shown in the economics of acid rain and its prevention. The SVP position consisted primarily of sending petition letters to MPs, telling them to do something about stopping acid rain. Either the industry would pay for pollution control, or the government would pick up the tab. Points brought up in the discussion emphasized that we, as a society, would have to pay the costs of protecting the environment. The amount of money involved in emission reduction is large, but not impossibly so.

For INCO to reduce its emissions from 3,266 tonnes per day to 1,360 tonnes per day would entail a capital cost of \$325 million. Over 15 years, at 15% interest, the cost works out at \$65.53 per tonne of sulphur removed. This sulphur is recovered in the form of sulphuric acid, which could be sold to be used in the production of phosphate fertilizers at the Cargill phosphate deposits. The pollution control also results in an energy saving. The cost of pollution control per pound of nickel produced is between 3¢ and 15¢ per pound. (The lower figure assumes some tax breaks are available.) The 1979 price

of nickel was \$2.84 per pound.

Canada produces one third of the world's nickel. This allows canadian producers to have some control over prices; there would be little problem in tacking the cost of pollution control onto the price of nickel. Production costs in Canada are lower than in other parts of world, for precisely the same reason as why canadian producers emit SO₂—the sulphur content reduces the energy required for smelting. There are indications the market for nickel is expanding. It would be ironic if nothing were done to reduce emissions at INCO, as increased demand for nickel is expected for use in pollution control devices, and for batteries for 'clean' electric cars.

However, prospects for other industries are not so good. In the copper industry, Canada is a price-taker, and increases in smelting costs would force smelters to pay mines a lower price for ores, which could drive the mines which are more expensive to operate, out of business.

Of course, control is only worthwhile if the benefits exceed the costs. The effects of acid rain on various environmental components have not yet been evaluated, but acid rain damage appears to be very costly. Damage to the tourist fishery in northern Ontario is estimated at \$230 million annually, and damage to salmon rivers in Nova Scotia at \$300,000. Forest yields on the Canadian Shield may decrease with increased soil acidity, and air pollutants can affect agricultural crops. Acid rain attacks buildings and automobiles. It can cause problems to human health by contaminating fish. Under acid conditions, inorganic mercury is converted to monomethyl mercury, rather than dimethyl mercury, which is less toxic. This substance accumulates in the food chain, and can cause human health problems if contaminated fish are consumed. The monomethyl-dimethyl theory has not yet been proved. Drinking water is commonly adjusted to pH7 so that direct effects are not a problem, but problems may arise where water supplies are from individual wells. Ontario estimates health costs attributable to acid rain at \$80 million a year.

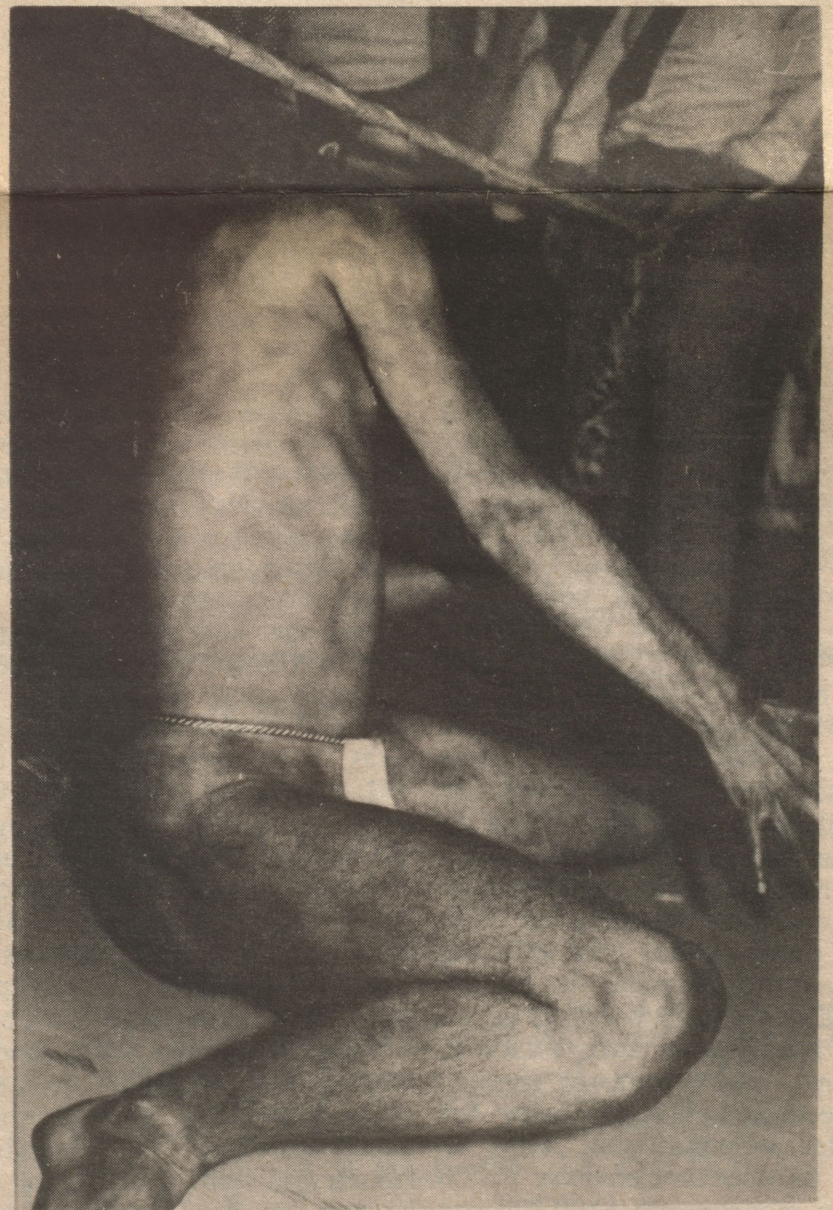
The OECD (Organization for Economic Co-operation and

Development) have estimated the cost of European emissions at about \$19 billion US annually. They estimate a fifty percent reduction in emissions would save \$1.78 to \$15.54 billion US in benefits, at a total cost of \$5.76 billion. Equivalent figures for North America are not available.

Thus the case for pollution control is not clearcut, and despite SVP's belief in action now, and research afterwards, there is an obvious case for waiting until all the evidence is in. The extent to which emissions should be controlled is a matter for informed debate, not unilateral action, and should take into account the cost of damage being done at various levels of emission; the cost of reducing emissions to various levels, and appropriate mechanisms for bringing about reductions, whether it be

through legislated percentage reductions, pollution quotas, cost sharing between government and industry, or on a polluter pay principle. The Sub-committee on acid rain of the House of Commons recommends Accelerated Capital Cost Allowances be granted for pollution control devices (companies can write off the capital cost of the equipment over two years, rather than over the expected life of the equipment). For new production facilities the committee recommends a polluter pay principle.

This article does not suggest a concrete course of action, but merely tries to point out the complexity of issues involved in decision-making on acid rain abatement. It is intended as a complement to the rather simplistic SVP presentation. Jon Waterhouse.



**LIMBO, LIMBO PAS ?
The tropical winner...**

PHOTO Nicole ROY

[4] L'Informatique: Vers une société robotisée

Après avoir passé mon cours de "computing" avec un beau C, maintenant que je ne suis plus soumis à la séance de torture hebdomadaire du vendredi matin, alors que le club des retardataires chroniques se rassemblait pour un ultime duel avec la machine butée, après toutes ces erreurs (warning bip bip) corrigées et ces devoirs copiés qui ne m'ont laissé qu'un maigre savoir, bref aujourd'hui je peux parler de l'informatique, ce monstre hideux, la tête bien froide et reposée.

La première question que je me suis posée fut bien sûr: "Est-ce bien correct de nous imposer, en biologie de l'environnement, ce cours atroce de Digital Computing?" La réponse qui tinte aussitôt à mes oreilles, c'est l'argument classique et inébranlable sur le mur duquel se sont brisés mes sursauts de révolte durant tout l'automne: "Ben oui, c'est utile, le traitement des données, patate boubada on en a besoin et tralala". Bon, j'aborderai donc le problème autrement.

En effet, il faut bien reconnaître que l'informatique a connu au cours des dernières années un développement fulgurant qui place aujourd'hui cette technologie dans une position de plus en plus dominante au sein de notre société. L'informatique s'est insinuée dans tous les domaines et la biologie n'en a pas été exemptée. Dans l'état actuel des choses, je ne conteste absolument pas qu'un finissant en biologie ait besoin de savoir utiliser un terminal; en fait, si la tendance se maintient, c'est bientôt tout le monde sans exception qui devra pouvoir le faire. C'est donc cette place privilégiée faite à l'informatique que je veux discuter. Je vais essayer de voir le problème d'un point de vue humain, et même philosophique. De ce point de vue, il n'y a que deux façons de voir un ordinateur: ou bien c'est une machine très efficace au service de l'homme, ou bien c'est une machine très efficace qui asservit l'homme (la femme aussi).

Que l'ordinateur soit efficace, ça ne fait aucun doute. Tellement efficace que les fraudes informatiques, avec un taux de succès d'environ 99.9% et une moyenne de \$400,000 par fraude, vont bientôt rendre le vol de banque dérisoire et périmé. Tellement efficace aussi qu'il est en train de tuer le génie, la spontanéité, la fraîcheur et la poésie chez l'être humain. L'informatique entraîne la robotisation de

l'esprit au nom de l'efficacité et du progrès.

Je parle de l'informatique en tant que phénomène global. Il est certain que les fastidieux calculs mathématiques ne seront plus jamais calculés 'à la mitaine', tout comme on ne retournera pas à l'âge de pierre (mais sait-on jamais avec la bombe atomique?). D'ailleurs les petits malins diront que la mise en page de ce journal a été faite sur un écran cathodique. Je n'ai rien contre certaines applications pratiques de l'informatique. Mais il y a des limites à ne pas franchir. On veut nous apprendre à penser comme la machine. Or la machine n'est pas intelligente; elle est efficace,

NUCLEAR: The roots of the problem

This letter is in response to an article published in Environment Update by Environment Canada about its involvement with nuclear energy. This article begins with the line: "Nuclear power is playing a vital role in Canada's drive for energy self-sufficiency. And Environment Canada has a prime responsibility to make sure that this comparatively new form of energy is safely used and developed."

Dear Dr. Roots,

I would like to express my protest about your article in Environment Update, November 1981 on Nuclear Energy. I have yet to comprehend why the Canadian government continues to support and encourage the development of the nuclear industry here in Canada and throughout the world. I take exception to your first line; nuclear power does not, and never will, play a vital role in Canada's, or anyone else's energy self-sufficiency. Nuclear energy is economically unfeasible: it is capital intensive, labour extensive, incurs high costs for repair, waste disposal, reactor decommissioning, etc., and it uses a non-renewable resource, ie. uranium. The financial weakness of the nuclear industry in both Canada and the United States is evidenced by its dependence on heavy government subsidies for its very survival.

It shocks me that an official of Environment Canada supports an industry that is so obviously a serious, long-term threat to the environment, and to human

health. De plus, l'informatisation généralisée risque de répandre le stress au rythme d'une épidémie. Ceux qui se sont déjà engueulés avec l'ordinateur comprendront.

Mais au-dessus de tout ça, c'est la liberté qui est menacée. L'informatique, c'est un modèle de société: une société hyper-centralisée où toutes les informations, les dossiers sur chacun d'entre nous sont contenus dans une petite boîte secrète accessible seulement à cette nouvelle classe sociale de bureaucrates futuristes que sont les informaticiens. L'informatique, c'est un écran vert qui va devenir le centre de tout. On nous prédit la fin du livre, la disparition des journaux. Je suis

peut-être un romantique, mais j'aime bien faire des taches de café et de beurre de peanut sur mon bon vieux journal du matin qui n'a pas son pareil pour me tirer en douceur des brumes du sommeil. Et quoi de plus agréable que de caresser les pages d'un beau livre?

Non, je ne passerai pas mes journées le nez collé à un bidule lumineux qui donnerait le mal de tête à Goldorak. C'est un refus global, viscéral. Je n'aurai pas étudié 3 ans de biologie pour en venir à ça. J'irai plutôt élever des moutons sur un flanc de montagne paisible. Et pour m'endormir le soir, je compterai les moutons dans ma tête, pas sur un maudit écran cathodique.

Louis Hamelin

health. Uranium mining, nuclear waste, and badly built reactors (eg. Pointe Lepreau) are all current or potential sources of risk to the biosphere. In the light of your expressed views on nuclear energy, I was interested to note that you mentioned how "closely" your department works with the

Atomic Energy Control Board, and the Atomic Energy of Canada Limited.

I would greatly appreciate an answer to this letter, and if you would like more information on the disbenefits of nuclear energy I would be glad to oblige.

Sincerely, Susan Johnson.

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Modern farms are the new trend in Chilean agriculture. However, the move towards large, highly mechanized farms has not been encouraged merely by economic imperatives, but also by shifts in the politics of land tenure. Dr. Armstrong, a McGill professor, talked about Chilean land reform at a seminar last Friday, organized as part of the World Food course.

Agricultural holdings in Chile come in varied forms, dependent on climate and social structures. Around the capital, and in some other parts of the country, land was organized in large estates, or **latifundias**, worked by peasants in return for a small cash wage, and food, board, and rudimentary education for their families provided by the **latifundista**, the owner. Latifundias could encompass thousands of hectares, and account for the skewed distribution of agricultural land in the country as whole: 2% of the rural population owned 65% of the land; 70% of the population were landless, or almost so, and owned only 1% of the land. Apart from causing an unequal distribution of wealth, latifundias also represented an inefficient use of the land. With such large acreages, latifundistas were not forced to make very productive use of their land. Land could be owned for prestige, or for speculation with no penalty, as there were no land taxes. To overcome this problem, land reforms were attempted by several Chilean governments.

The first land reform of 1962, under the presidency of Alessandri, a conservative, Armstrong regards as insignificant. However, Eduardo Frei, the liberal who succeeded him in 1964, instituted a more significant reform, which took three years to get through parliament, because of substantial opposition. The reform was intended to distribute land to 100,000 rural families, itself only a small portion of the 2.5 million rural inhabitants; but at the end of Frei's presidency only 25% of the objective had been achieved.

In 1970 Salvatore Allende, a socialist, was elected, with only 37% of the votes of the assembly. The right and centre parties had not been able to agree on a single candidate, and had thus fielded two, which split the conservative vote. With a minority of supporters in

the assembly, Allende was unable to enact a new reform bill, and had to content himself with amending the previous, Christian-Democrat bill.

Redistribution of the land proceeded rapidly, although latifundistas were left with personal holdings of 80ha, which they were allowed to choose themselves, thus leaving to them the best land, with water supplies, road access and buildings. Redistribution occurred at different rates throughout the country. In the south a native tribe quickly repossessed land that had been taken from them by force, and set up communally-run farms. In other parts of the country latifundistas, through their influence in the judiciary and government, significantly

impeded redistribution.

Although reform proceeded rapidly under Allende, by the time he was assassinated in 1973, still only 80% of the target had been reached.

But the reforms accomplished under Allende were quickly reversed under the military dictatorship of Pinochet. The government took over the redistributed lands, and sold them off cheaply, primarily to consortia of business men. Pinochet's laissez-faire capitalist policies led to highly mechanized farms producing for lucrative markets; Chile exports a lot of fresh fruit to North America. Other agricultural sectors, such as the milk industry, collapsed because of the removal of import restrictions.

Armstrong sees land tenure as the most important factor in agricultural economies, and an issue which has inspired many political uprisings. He suggests land reform is a permanent necessity in most societies, as left to itself, land tends to become concentrated in fewer and fewer hands. One reason for this is that fathers tend to split up their land among their children, eventually creating non-viable parcels of land. These families then leave the land, which is bought up by large landowners.

Armstrong suggests that only the land reform of Allende, which created communal farms that could remain permanently viable, had the potential to halt this trend toward concentration. Jon Waterhouse.

En direct du MACADAM

Malgré plusieurs -----, le café n'a pas encore réussi cette année à atteindre son rythme de croisière. Ce n'est pas par manque de bonne volonté puisque les bénévoles se présentent aux heures, le travail se fait.

C'est un autre niveau, je crois, que le problème se pose. En effet, depuis le début de l'année, le café est pratiquement en tutelle. Le comité de gestion est à la merci des décisions du Student's Council du Centennial Center Committee et, jusqu'à un certain point, du coordonnateur. La cafétéria est en charge de la préparation de la nourriture selon les recommandations du coordonnateur et du comité de gestion. Cependant, par un souci quasi maladif d'économie, on nous sert de la nourriture au compte-goutte. Il est arrivé très souvent qu'il ne reste aucun sandwich à une heure ou même à midi. Il n'est pas difficile d'imaginer l'effet de telles erreurs à long terme.

Un autre problème: la musique. Avant Noël, l'amplificateur du système de son s'est brisé. Il n'est pas encore réparé. Comme le matériel appartient au Centennial Center, le comité de gestion du Café ne peut s'en occuper et doit compter sur d'autres pour faire ce travail. Résultat : depuis deux mois (2), l'ambiance se détériore et le Café perd son cachet.

Il me semble que si le système de son du Ceilidh se brisait, les réactions seraient beaucoup plus rapides.

Evidemment, le Ceilidh rapporte beaucoup plus d'argent au C.C. que le Café.

Puisqu'il s'agit d'une question de gros sous, le Café à quand même fait des profits à la dernière session. Cependant, ces profits ne couvrent pas les investissements comme la cafetière, le réchaud, etc. Le C.C. committee considère que le Café doit financer l'achat de cassettes, de disques, enfin toute l'infra-structure à même ses profits. Le Café doit carrément devenir une entreprise privée.

Les bénévoles eux, continuent à travailler pour servir d'autres intérêts que les leurs. Les lendemains de party ils nettoient gratuitement alors que le soir, la salle se loue \$50. pour payer les prétendus frais de ménage. Il paraîtrait que le Café ouvre trop tôt le matin

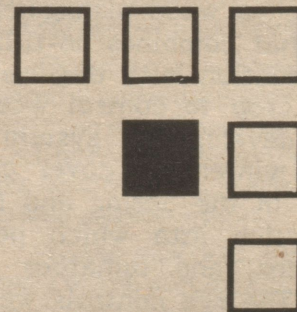
pour que des concierges aient le temps de nettoyer. Question de priorité s quo.

Voilà les problèmes auxquels se confronte le comité de gestion. C'est fastidieux. Moi j'aurais aimé que le Café soit le carrefour de la vie étudiante, un générateur d'idées et d'énergies. Mais il semble que la vie étudiante soit en baisse et que l'énergie manque.

Il faudrait se mobiliser pour utiliser le Café au maximum; organiser des conférences, des films; que tous les étudiants se sentent impliqués. Le Café ne doit pas devenir une deuxième cafétéria sous la juridiction d'autorités lointaines, mais un reflet de ce qu'il reste de vivant au Collège.

Isabelle Montpetit.

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Third World should go organic, says US report

A recently released report prepared for the US committee on Foreign Affairs suggests US agricultural experts should familiarize themselves with 'organic' agriculture techniques before advising Third World countries. High input, monocrop agriculture can be a fast dead-end for tropical farmers, according to the report.

"A particularly interesting facet of these new technologies is that they could benefit not only the Third World, but also US agriculture, by providing opportunities for economic diversification, reducing soil degradation, and bolstering production while lowering capital costs." (The report will be available soon in the EAP office, Barton 1-022.).

Good news for sheep.

Deworming sheep can be an unpleasant job- both for you and for your animals, especially if you're not enthusiastic about using drugs. One solution that seems to be receiving increasing attention for american farmers is to add 'diatomaceous earth' to the herd's diet. The microscopically sharp edges of of the fossilised skeletons of the sea organisms that make up this product, pierce the protective coatings of the parasites. The parasites then dry out in a few hours and die.

No-till without herbicides.

Ever heard of the old buckwheat-fall rye method of getting rid of quackgrass? Well, researchers in Michigan are working on a weed management system that combines no-tillage crop production with the use of a cover crop to control weeds. They've developed a system in which a winter rye cover crop is killed in the Spring and left as a mulch into which peas, snap beans, and tomatoes are planted. The rye controls weeds throughout the season by physically mulching the soil, and also through allelopathic chemicals it releases.

Bacterial flora of cotton induce resistance to pests.

One way in which plant tissues resist pest damage is by the presence of sybiotic microorganisms which out-compete or inhibit pest growth and reproduction. Dr.J Benedict, of the Texas

Agricultural Experiment Station has demonstrated that boll weevil damage on cotton can be significantly reduced (15-40% yield increases) by applying suspensions of bacteria isolated from normal cotton flora. Plants sprayed with the bacteria synthesized higher levels of tannins, which resulted in 'non-preference' for these plants by boll weevils. As these plant tannins are implicated in plant resistance to other pests as well, multi-pest resistance could result from applications of bacteria.

The Ulimite in Recycling

How to get rid of your garbage, and make free fertilizer for your garden- now there's a question. Take a five gallon bucket with holes in top and bottom and place on a chip-pan.

Sprinkle peat moss to cover bottom, then fill to one third with a 1:10 peat potting soil mixture. Add 150 or so worms, and fill one third more with the soil mixture. Soil should be light, porous, and neutral. Add worm food, ie all your vegetable waste except citrus- they'll take all you can give them. If you can chop the wastes it's better. Keep the bucket in the shade between 50-95 degrees F. Occasionally, you can drain moisture from the chip pan to fertilize your house plants or your lettuce under lights. Remember, you can recycle all through the winter, and if done properly ther should be no smell. Research from the St. Etienne St. research staion should be available in a couple of months. Watch for them in this column.

Recent Acquisitions at EAP.

Edible City Resource Manual:

This new book describes the development of community gardening in Eugene, Oregon, and the design and development of an increasingly self-reliant food system. While bringing the reader up to date on what has already ben done in Eugene, the book presents an ambitious methodological approach to rehabilitation of neighbourhoods that use edible landscapes and food gardens as the main component. N.B. EAP also receives City Farmer, a newspaper on urban agriculture from Vancouver. They recently predicted from survey results that Vancouver could be food self-sufficient if all available land space were cultivated.

Desertification in the United States.

For those who did not hear the seminar given by Alberta soil scientist Fred Bentley last term, and who still think that desertification is confined to the Third World, here's a book to read. It gives good information on land degradation in the US due to erosion, salinization, groundwater depletion, etc.

L'Industrie de la faim: par dela le mythe de la penurie

Enfin, la version française de Food First par Frances Moore Lappé est disponible pour emprunter au Projet pour une Agriculture Ecologique. Ce livre explique clairement les raisons plutôt politiques que techniques de la famine au tiers monde. Food First is on sale for \$3.25 at the EAP office.

Aid as Obstacle

This is not a recent acquisition, but while we're talking politics, I might as well mention this excellent book about "aid" to Third World countries.

— Student Council —

At the beginning of this new year,(and new term.), I would like to wish you, on behalf of your students' Council, all possible success.

First of all, as I promised you, I would like to present an overview of the last Council meeting of 1981. A member of RAEU came at the end of November to answer any questions we had about this organization. (I am very sorry that his visit was not better advertized to the student body). We also received a note from the Faculty, saying that next year a free time block on Thursday at 11 am will be a reality and not only a theory, as is the case at present. Our president has also mentioned that council members should start to form an opinion on honoraria. He read out the motion of last year's council, which suggested the following figures:

President: \$200-800
Internal V-P: \$200-600
External V-P: \$200-600
Treasurer: \$200-600
CC Chairperson: \$200-600

Since this meeting it has been decided to give council members something other than cash. So far, the motion suggests that each member receive a commemorative plaque. Personally, I believe that the final motion will include a minimal amount of money for the executive members to cover at least the indirect costs of the positions they hold. Anyway, nothing is decided so far (about the money), but the honoraria question is still a very "hot" one, especially since you are

voting for something that personally concerns you. In fact this question is so difficult to handle, that I would not be surprised to see it as an editorial headline...

We also discussed McGill investment in South Africa through their holdings in 42 companies. A report is supposed to be submitted on that in January. For further info. on that see your Board of Governors rep. ("Gor-don") Owen. This term the first council meeting was on Jan. 14, 1982, at 7:30 am. The honoraria question was the major item, (see above). During the first few weeks we had a couple of other meetings. You will get the info on these later, as the minutes become available. Despite having to attend all these council meetings, your executive found the time, (believe it or not), to hold three or four finance meetings. The principal budgets whose figures were decided on were: Winter Carnival, Livestock Show, College Royal.

The "official" part of my job now being finished, I would like to bring to your attention that the Winter term will be full of activities organized for you, "Mac students". The least you can do is to show to all these organizers that you appreciate what they are doing for you. How? Very simple... You take two or three hours of your precious time, and you participate. (Don't tell me that it is difficult to go to a party and have a couple of beers....)

See you there...

Your Council (in the human form of Michel Bruneau)

Ruiter Valley Community : a New Age Village

7

by Csilla Csank

In 1977, a group of friends decided to start a community. Despite professional success, they were unhappy with their lifestyle. It lacked framework and purpose. And so they began a new way of living. Robert Shepherd, a Montreal psychiatrist, gave land he owned in Duncan, near Mansonville in the Eastern Townships, to found the Ruiter Valley Center. In 1978, the new village, also known as Forest Farm, was born.

They are now one of the many communities trying to use high technology to work for them instead of against them. Robert calls the community a "new age village" and stresses that it is not a commune. As a cooperative village, they share food and give some of their time to work for the community each day. Each member, however, provides his or her own source of income, from workshops, working part-time at a profession, free-lance writing, and other means. The aims of the community are to be self-sufficient, to tune into their own spirituality, to live closer to nature, and to be creative. The need to be alone and expand one's own individuality is respected.

The farm has been running for four years now and is doing well. There are twelve "core" members. They include psychologists, a social worker, a housewife, a chemist, freelance writers artists, a specialist in macrobiotics, and teachers. Only Robert, the psychiatrist, and Joan, who left teaching kindergarten to join the community, remain from those who began it.

Part of their funding comes from the various workshops they offer. In these they share their talents as healers and teachers. There are weekend groups in Shiatsu message, the creative use of aggression, a dance workshop, wilderness treks, and a creative writing workshop. All are given by experienced and professional individuals. They also have festivals that people can attend and a retreat cabin available free of charge. The community is open to visitors at twelve dollars a day which includes meals and a place to sleep.

In the summer, the community is a home for eight

to twelve severely mentally and emotionally disturbed people. They offer a program to help them to be resocialized in an atmosphere where they can live and work together. They come from institutions or the streets where they can't cope to undergo this "back-to-the-land" therapy.

The community is also using their own resources as an energy source. They have built a dam on the river that flows through their land and have made their first water wheel. To build it they paid only forty-two dollars and fifty cents. It is made from two bicycle wheels, a steel drum, and an old generator from a truck, along with a few pieces of plywood and some screws. From the river they feel they can get three or four kilowatts of power.

To heat water for showers they have begun using solar energy. A jet pump is being used to pump the water up from the brook. In the summer they will also use the pump to irrigate their garden.

The village has built its own

sauna, and an epsom salt float tank, which is available to people outside the community for use.

Robert Shepherd feels this kind of village will become more common in the future.

Being self-sufficient, producing our own energy, and using our full potentials in such small communities, may be an important alternative to our current North American lifestyle. Farm number:

1-292-3751

Arboretum Anguish

It was quite a shock for Macdonald students to learn they will have to pay a membership fee if they want to ski in the Arboretum on weekends this winter. In the past access to this beautiful 600 acre piece of land was one of the privileges of being at Mac; and the student felt strongly about this right. But contrary to popular belief the Morgan Arboretum is not part of Macdonald College. It is a private association that receives no regular support from McGill University, or from student activity fees. It finances itself through its membership fees and the sale of maple syrup, wood, fir boughs, etc. These bring enough to keep the Arboretum going, but not enough to hire

enough trained personnel to really manage it properly.

The Arboretum is extremely intensively used for a number of different, and sometimes conflicting purposes, including nature education, recreation (eg. cross country skiing), and as a demonstration of good woodlot management. As such it is a unique resource in the area.

The student fee is very low compared to the regular rate: \$9 vs. \$24 (if you join now the price is \$4.50), but for the Arboretum budget it still constitutes a significant amount. The Arboretum is a worthy cause and deserves the support of Macdonald students.

Memberships can be bought at the Morgan Arboretum office, MS 2-60.

Daniel Rodier.
Scholarship student. Dedicated
to becoming a marine biologist.

Will he make it?

No, he won't.

Danny's a brilliant student. There's no end to what he wants to learn. Yet Danny's no hermit. He really enjoys a good time.

That's the problem. It's not that he sets out to drink too much, but once Danny starts he often forgets he has a limit, and then it's too late.

Danny would be wise to see a doctor, except he says it's just a phase he's going through. His work hasn't suffered yet. But if Danny doesn't change, it soon will.

And, no, Danny won't make it.

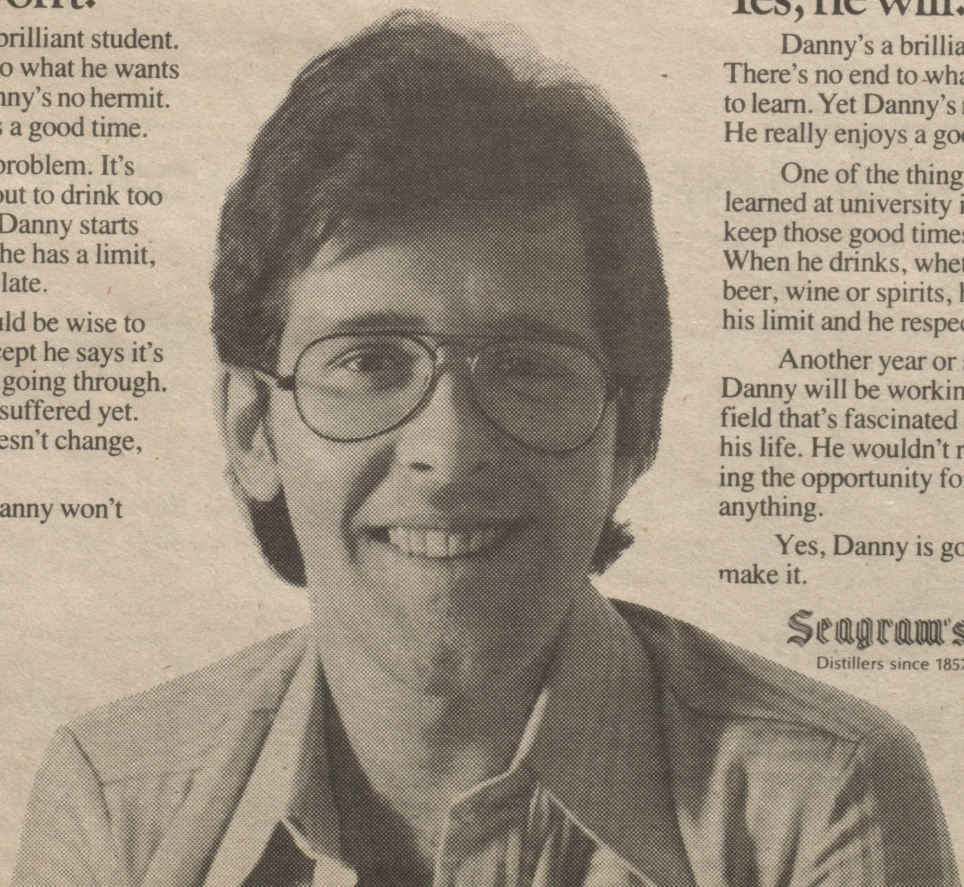
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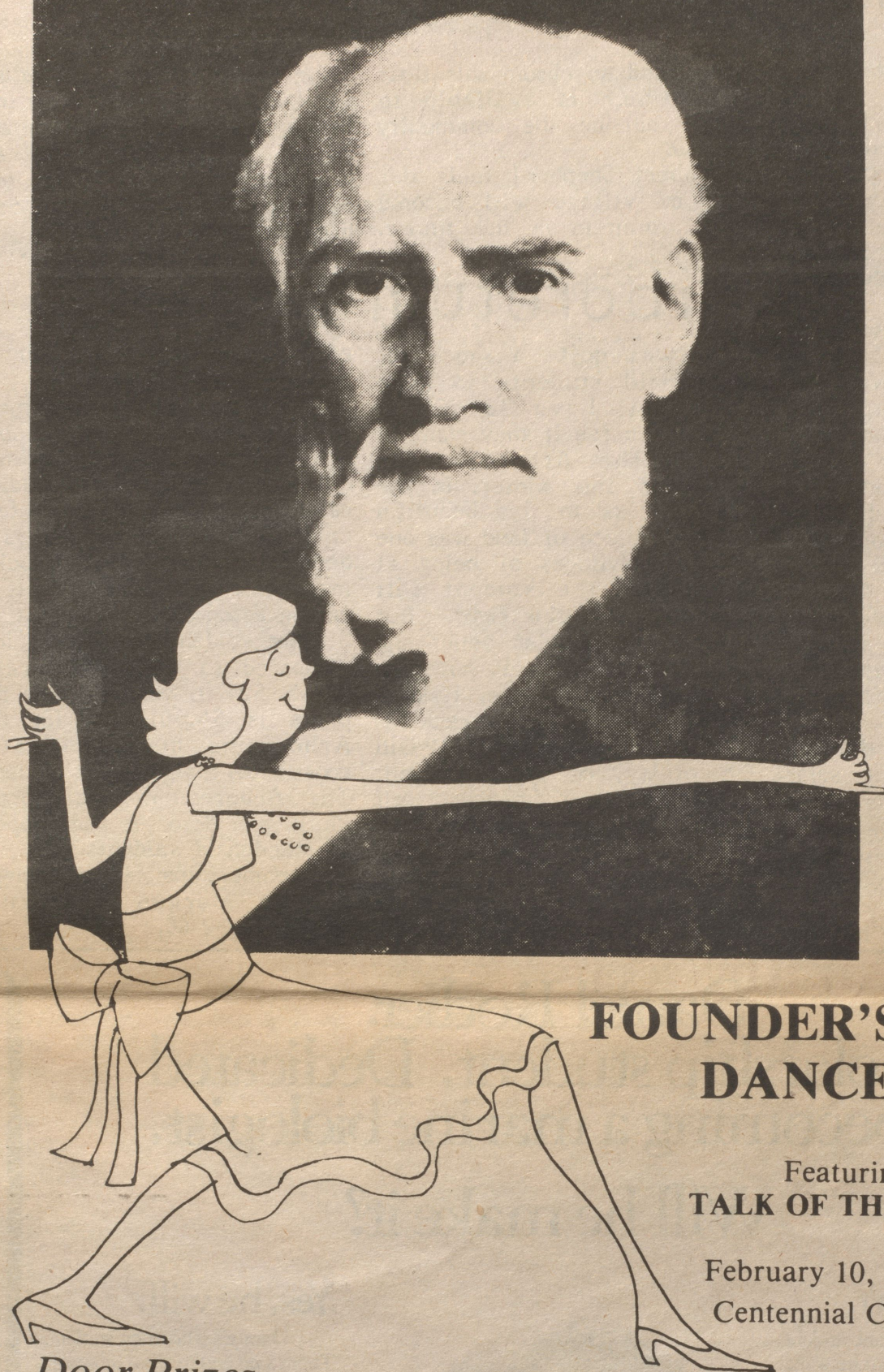
One of the things Danny's learned at university is how to keep those good times good. When he drinks, whether it's beer, wine or spirits, he knows his limit and he respects it.

Another year or so, and Danny will be working in a field that's fascinated him all his life. He wouldn't risk spoiling the opportunity for anything.

Yes, Danny is going to make it.



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Cash Bar

HORTICULTURAL SOCIETY: all about coleus!

The square stems and opposite leaves of the coleus identify it as part of the family Labiatae or mint family. Of the 150 tropical species found in that genus, the Coleus blumei species is the most often found in our houses. It was introduced into cultivation in 1825 and is grown for its foliage, or for its spikes of small, but colourful flowers. The coleus is a short day plant, and as such flowers during November and December. It has a brilliantly coloured red foliage with leaves patterned and variegated in shades of red, orange, yellow, and white. This beautiful and attractive plant came originally from Java, and can attain a height of two feet.

This plant, a herbaceous annual or perennial, is a very popular bedding plant, which can also be kept as a potting plant during the winter.

Outside, the coleus is excellent for borders, window boxes, containers, and even hanging baskets. Indoors, they will fit very well in a sunny windowsill, or in any brightly-lit, airy place.

Present day varieties are a combination of many types and colours. It is a good idea to have several varieties, so as to make an attractive arrangement of different foliage.

Factors for growth

Temperature- night: no lower

than 60 degrees F

Day: optimum 70-80 degrees F. Light- indoors: bright diffuse light or full sun.

outside: in the shade. Leaf colours are strongest in light shade, as they bleach out in full sun.

*Do not move indoor plants directly to full sun outdoors, or they will get severely burned.

Water- Keep soil uniformly moist but not wet. Coleus is a thirsty plant, quick to wilt. When indoors water every day.

Water very frequently outside. Soil- A light soil is suitable. A good mix is garden soil with sand.

Fertilizer- feed coleus every 2-4 weeks when it is growing

vigourously.

Pruning- Regular pruning and trimming keep plants bushy and encourage branching.

Propagation:

Cuttings

Varieties in the trade are propagated from cuttings to have thoroughbred plants, and obtain uniform foliage.

Use stem cuttings in a four inch pot. It will take about four weeks to produce a satisfactory plant.

Root cuttings in water in late summer to grow as winter house plants.

Seed

If you propagate with the seeds of your own plants you will probably obtain multicoloured foliage plants. Seed strains which grow true to type are available on the market.

It is hard to start from seed because the seeds are so small (100 to 112 thousand seeds in an ounce).

The seeds require light for germination, so do not cover them with soil.

Sow the seeds in rows from a quarter to three eighths of an inch deep

A peat-like mix works well to maintain the proper moisture.

Transplanting

Transplant as soon as the seedlings show the first two leaves (not seed leaves).

Roots should not be transplanted any deeper than they were in the seed flat.

Time from seedling to mature plants will cover about 8 to 10 weeks.

Transplant mature plant outside in may.

PROBLEMS:

Mealy bugs

Cottony white secretions on stems, under leaves. Slow moving insects. Mottled foliage. To control, wash off with gentle stream of warm water.

White Flies

Tiny white insects fly up when disturbed. Weakened, mottled leaves. To control, wash off wingless larvae.

Spider Mites

Leaves mottled and dusty, often with burned margins; fine webs in growing tips, stem angles. To control, wash and spray plant with warm water several times in 2-3 weeks.

DISEASE:

Gray Mold (Botrytis)

Gray or brown mold on dead tissue invades growing tip in humid climates. To control, remove infected tissue and damaged or dying parts to eliminate infection sites. Keep plant leaves dry.

Madeleine Lemay.